## **REMARKS**

Claims 15-17, 22-27 and 29 are now pending. By this Amendment, claims 1-14, 18-21 and 28 are canceled; claims 15-17 and 22-27 are amended; and claim 29 is added. Support for the amendments can be found in the original specification, at, for example, Figures 5-7 and 13 and the description of these figures in the specification.

Claims 12-16, 20 and 28 are rejected under 35 U.S.C. §112, second paragraph.

Claims 12-14, 20 and 28 are canceled. Claim 15 has been amended to provide antecedent basis for "the planar board." In addition, claim 16 has been amended to recite "lyophilic properties." Based on these amendments, it is respectfully submitted that the rejection under 35 U.S.C. §112, second paragraph, should be reconsidered and withdrawn.

Claims 10-21 and 25-27 are rejected under 35 U.S.C. §102 or §103 over Choi. Claims 10-14 and 18-21 have been canceled. With regard to claims 15-17 and 25-27, Applicants respectfully traverse the rejection.

Choi teaches carbon nanotubes fused to cathodes by adhering the carbon nanotubes and metal powder with an organic matter, and then evaporating the organic matter and melting the metal powder to fuse the carbon nanotubes to the cathodes. Col. 4, lines 7-13. Choi does not teach or suggest the carbon nanotubes structures of claims 15 and 16.

Claim 17 has been amended to depend on claim 16, which is patentable over Choi for the reasons discussed above. In addition, claims 25-27 have been amended to depend from claim 22, which has not been rejected on this basis.

Choi does not teach or suggest the invention of claims 15-17 and 25-27. Therefore, the rejection over Choi should be reconsidered and withdrawn.

Claims 10-21 and 25-27 are rejected under 35 U.S.C. §102 or §103 over Zhang et al. In addition, claims 22-24 and 28 are rejected under 35 U.S.C. §103 over Zhang.

Claims 10-14, 18-21 and 28 are canceled. With regard to claims 15-17 and 22-27, Applicants respectfully traverse the rejections.

As with Choi, Zhang does not teach the structures of claims 15-17. In addition, Zhang does not teach or suggest the inventions of claim 22. In particular, Zhang does not teach or suggest a device comprising two or more carbon nanotube layers. Claims 23-27 depend from claim 22 and are therefore patentable over Zhang for at least the same reasons as claim 22.

Zhang does not teach each and every feature of claims 15-17. In addition, Zhang does not teach or suggest the features of claims 22-27. Therefore, the rejections over Zhang should be reconsidered and withdrawn.

Claim 29 has been added to further define the invention. Neither Choi nor Zhang teach or suggest a device comprising a planar board having plural convex parts and a carbon nanotube structure connecting the plural convex parts, where each carbon nanotube of the carbon nanotube structure has a longitudinal axis that is substantially parallel to the planar board.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 15-17, 22-27 and 29 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

James A. Oliff

Registration No. 27,075

Melanie L. McCollum Registration No. 40,085

JAO:MLM/jam

Date: August 4, 2004

OLIFF & BERRIDGE, PLC P.O. Box 19928 Alexandria, Virginia 22320 Telephone: (703) 836-6400 DEPOSIT ACCOUNT USE
AUTHORIZATION
Please grant any extension
necessary for entry;
Charge any fee due to our
Deposit Account No. 15-0461